

Knowledge Mat- Science – Y6 Classification

Year 4	Year 6	Secondary school
<ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird 	<ul style="list-style-type: none"> Classify living things into broad groups according to observable characteristics and based on similarities and differences Know how living things have been classified Give reasons for classifying plants and animals in a specific way 	<ul style="list-style-type: none"> the similarities and differences between plant and animal cells the hierarchical organisation of multicellular organisms: from cells to tissues to organs to systems to organisms

Subject Specific Vocabulary	
vertebrate	A vertebrate is an animal that has a back bone.
micro-organism	Micro organisms can only be seen with a microscope. Examples of microorganisms include bacteria, archaea, algae, protozoa, and microscopic animals such as the dust mite. They are found everywhere, in soil, air, water, on your skin and even in your guts!
invertebrate	An invertebrate is an animal without a backbone.
species	A group of similar organisms that are able to reproduce.
Carl Linnaeus	Carl Linnaeus is famous for his work in taxonomy- the science of identifying, naming and classifying living organisms.
classify	Arrange (a group of things) in classes or categories according to shared qualities or characteristics.
Taxonomists	Scientists who sort and group living things according to their similarities and difference

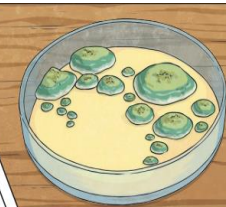
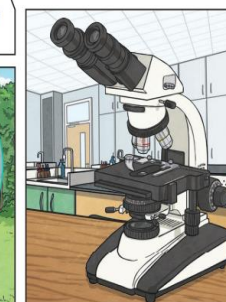
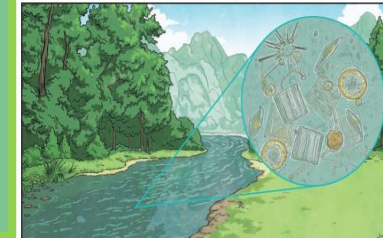
Knowledge

- I know how living things have been classified.
- I can give reasons for classifying plants and animals based on specific characteristics.
- I can classify living things into groups according to observable characteristics based on similarities and differences.

Microorganisms


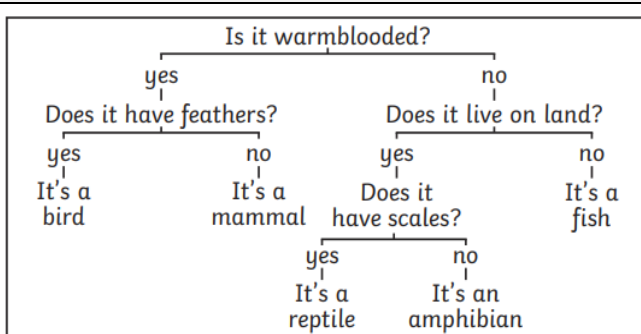
Microorganisms are viruses, **bacteria**, moulds and yeast. Some animals (dust mites) and plants (phytoplankton) are also **microorganisms**.

Microorganisms are very tiny living things that can only be seen using a **microscope**. They can be found in and on our bodies, in the air, in water and on objects around us.


Classification

In 1735, Swedish Scientist **Carl Linnaeus** first published a system for **classifying** all living things. An adapted version of this system is still used today: **The Linnaeus System**.

What is CLASSIFICATION?

Have you ever sorted your toys, books or clothes into different groups? Perhaps you have grouped things together by colour, shape or size – this is like classification (taxonomy).

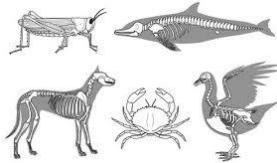


Carl Linnaeus created a system called BINOMIAL naming (two words)– every plant and animal that he knew about was given a GENUS name and a SPECIES name, in Latin. He would look at a species and see what was different about it. It might be a certain colour, size, texture or be from a certain place. He would use this information in the BINOMIAL name. How about this ladybird? In America, this is called a ladybug; in other countries it's a lady beetle. Its GENUS name is *Coccinella septempunctata*.

CLASSIFICATION is the study of putting all living things into groups.

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vertebrate



animals with a backbone

invertebrate



animals without a backbone

micro-organism



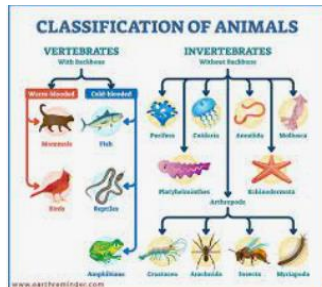
living things too small to see with just your eyes
e.g bacteria

species

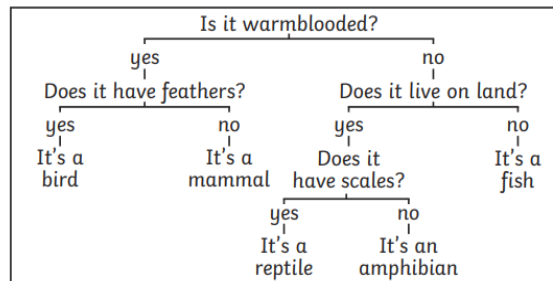


a group of living things which are able to reproduce

classify

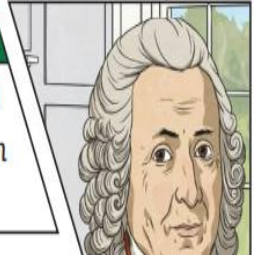


putting things into groups with similar characteristics



Carl Linnaeus

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